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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,184	01/26/2001	Neil Fishman	13768.159	6958

22913 7590 05/19/2004

WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER &
SEELEY)

60 EAST SOUTH TEMPLE
1000 EAGLE GATE TOWER
SALT LAKE CITY, UT 84111

EXAMINER

TRAN, PHILIP B

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 05/19/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

7/1

Office Action Summary

Application No.

09/771,184

Applicant(s)

FISHMAN ET AL.

Examiner

Philip B Tran

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 2-11, 13-23, 25-28 and 30-36 are objected to because of the following informalities:

In claims 2-3, 6 and 8-10, line 1, "A method as recited in claim 1" should be "The method as recited in claim 1" for clarity.

In claims 4-5, line 1, "A method as recited in claim 3" should be "The method as recited in claim 3" for clarity.

In claim 7, line 1, "A method as recited in claim 6" should be "The method as recited in claim 6" for clarity.

In claim 11, line 1, "A method as recited in claim 10" should be "The method as recited in claim 10" for clarity.

In claims 13, 15, 19 and 21-23, line 1, "A method as recited in claim 12" should be "The method as recited in claim 12" for clarity.

In claim 14, line 1, "A method as recited in claim 13" should be "The method as recited in claim 13" for clarity.

In claim 16, line 1, "A method as recited in claim 5" should be "The method as recited in claim 5" for clarity.

In claims 17-18, line 1, "A method as recited in claim 16" should be "The method as recited in claim 16" for clarity.

In claim 20, line 1, "A method as recited in claim 19" should be "The method as recited in claim 19" for clarity.

In claims 25-26 and 28, line 1, "A method as recited in claim 24" should be "The method as recited in claim 24" for clarity.

In claims 30-32 and 34-35, line 1, "A computer program product as recited in claim 29" should be "The computer program product as recited in claim 29" for clarity.

In claim 33, line 1, "A computer program product as recited in claim 32" should be "The computer program product as recited in claim 32" for clarity.

In claim 36, line 1, "A computer program product as recited in claim 35" should be "The computer program product as recited in claim 35" for clarity.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 27 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claim is directed to non-statutory subject matter because it lacks a computer readable medium and thus a program product comprised of machine-executable instructions (software) per se is not tangibly embodied.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-36 are rejected under 35 U.S.C. § 102(e) as being anticipated by Schwartz et al (Hereafter, Schwartz), U.S. Pat. No. 6,473,609.

Regarding claim 1, Schwartz teaches in an computerized system that includes a content server (= network server (104) or (604)), a mobile gateway (= link server (606)), and one or more mobile clients (= mobile devices (106) or (602)) [see Figs. 1 & 6], wherein the mobile gateway transforms content received from the content server based on one or more operating characteristics of at least one mobile a client, and wherein the at least one mobile client is unaware of the specific transform applied to the content (= link server (606) receives the HDML files from the network server (604) and then processes files and converts to screen description data according to the device characteristics of mobile device (602). This process is carried out by the link server (606) and thus client is unaware of specific transformation) [see Col. 3, Lines 40-55 and Col. 11, Lines 15-33], a method of obtaining transformed content from the mobile gateway so that the transformed content may be sent to the at least one mobile client (= screen description data are then forwarded to mobile device (602) over wireless network (614) for displaying) [see Col. 11, Line 42-48], the method comprising the acts of :

receiving content (= content as messages or files or data) at a mobile gateway (= receiving HDML files at the link server (606)) [see Col. 11, Lines 19-20];

applying a first transform to the content, thereby creating a first transformed to content, the first transform specifically considering one or more operating characteristics of at least one mobile client (= processing HDML files and then converting to screen description data according to the devices characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26];

storing the first transformed content in a mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606)) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34];

requesting the content from the mobile gateway cache, wherein the request includes a first transform identifier (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15];
and

in response to the request for content, returning the first transformed content (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 2, Schwartz further teaches the mobile gateway (= link server (606)) includes mobile client data associating the first transform with the at least one mobile client (= mobile device characteristics information and ID) [see Col. 7, line 56 to

Col. 8, Line 11 and Col. 15, Lines 16-21 and Col. 17, Line 65 to Col. 18, Line 5], the method further comprising the acts of :

receiving a request for the content from the at least one mobile client (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Fig. 6 and Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15];

retrieving the first transform identifier from the mobile client data (= retrieving URL identified in the client request) [see Col. 14, Lines 2-9 and Col. 15, Lines 28-64];
and

sending the first transformed content to the at least one mobile client (= delivering converted files to the mobile devices (106) or (602)) [see Fig. 6 and Col. 11, Lines 42-48 and Col. 13, Lines 32-36 and Col. 16, Line 66 to Col. 17, Line 2].

Regarding claim 3, Schwartz further teaches the act of receiving from the content source (= network server (104) or (604)), content addressed to two or more mobile clients (= mobile devices (106) or (602)), wherein the acts of (i) receiving content at a mobile gateway, (ii) applying a first transform to the content, and (iii) storing the first transformed content in a mobile gateway cache, are performed in connection with obtaining transformed content for a first of the two or more mobile clients, and wherein the acts of (iv) requesting the content from the mobile gateway cache, and (v) returning the first transformed content in response to the request for content, are performed in connection with obtaining transformed content for a second of the two or more mobile

clients (i.e., since there are a plurality of mobile devices (106) [see Fig. 1] and the control engine of the link server (606) can process one or more client URL requests [see Col. 19, Lines 18-25], the act of performing steps (i) –(v) can be in connection with obtaining transformed content for different mobile devices).

Regarding claim 4, Schwartz further teaches the act of sending the first transformed content to the two or more mobile clients (i.e., since there are a plurality of mobile devices (106) [see Fig. 1] and the control engine of the link server (606) can process one or more client URL requests [see Col. 19, Lines 18-25], the first transformed content can be sent to the two or more mobile devices).

Regarding claim 5, Schwartz further teaches the content comprises a notification (= notifications) [see Col. 20, Lines 33-38].

Regarding claim 6, Schwartz further teaches the content is identified by a uniform resource identifier (= a uniform resource identifier (URI)) [see Col. 14, Lines 4-9].

Regarding claim 7, Schwartz further teaches the uniform resource identifier comprises a uniform resource locator (= a uniform resource locator (URL)) [see Col. 14, Lines 4-9].

Regarding claim 8, Schwartz further teaches the act of storing the content in the mobile gateway cache (= storing content in the memory cache) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 13, Lines 32-34].

Regarding claim 9, Schwartz further teaches the acts of :

applying a second transform to the content (= content as messages or files or data), thereby creating a second transformed content, the second transform specifically considering one or more operating characteristics of a second mobile client (= processing HDML files and then converting to screen description data according to the devices characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26];

storing the second transformed content in the mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606)) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34];

requesting the content from the mobile gateway cache, wherein the request includes a second transform identifier (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15]; and

in response to the request for content, returning the second transformed content (= retrieving the requested information and forwarding the converted files (= cards) to

the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 10, Schwartz further teaches the content comprises a first portion of other content, the other content including the first portion and a second portion (= content as messages or files or data), comprising the acts of :

requesting the other content (= content as messages or files or data) from the mobile gateway cache (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15]; and

in response to the request for the other content, returning the first transformed content (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 11, Schwartz further teaches the acts of :

requesting the second portion of the other content (= content as messages or files or data) from the content source (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606) or to a remote object on service server (604)) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15];

storing the second portion of the other content in the mobile gateway cache (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15];

applying a transform to the second portion of the other content, thereby creating a second portion transformed content, the transform specifically considering one or more operating characteristics of one or more mobile clients (= processing HDML files and then converting to screen description data according to the devices characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26];

storing the second portion transformed content in the mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606)) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34]; and

in response to the request for the other content, returning the second portion transformed content (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 12, Schwartz teaches in an computerized system that includes a content server (= network server (104) or (604)), a mobile gateway (= link server (606)), and one or more mobile clients (= mobile devices (106) or (602)) [see Figs. 1 & 6], wherein the mobile gateway transforms content received from the content server based

on one or more operating characteristics of at least one mobile client, and wherein the at least one mobile client is unaware of the specific transform applied to the content (= link server (606) receives the HDML files from the network server (604) and then processes files and converts to screen description data according to the device characteristics of mobile device (602). This process is carried out by the link server (606) and thus client is unaware of specific transformation) [see Col. 3, Lines 40-55 and Col. 11, Lines 15-33], a method of obtaining transformed content from the mobile gateway so that the transformed content may be sent to the at least one mobile client (= screen description data are then forwarded to mobile device (602) over wireless network (614) for displaying) [see Col. 11, Line 42-48], the method comprising steps for:

 caching content (= content as messages or files or data) in a mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606)) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34];

 transforming the content according to a first transform, thereby creating a first transformed content, wherein the first transform is based on one or more operating characteristics of at least one mobile client (= processing HDML files and then converting to screen description data according to the devices characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26];

 adding the first transformed content to the mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606) wherein the next

card from the received HDML deck is cached in the memory in the link server (606))

[see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34];

querying the mobile gateway cache for the content, the query including a first transform identifier (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606))

[see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15]; and

in response to the query for content, providing the first transformed content (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 13, Schwartz further teaches the step for providing the first transformed content comprises the acts of :

receiving a request for the content (= content as messages or files or data) from the at least one mobile client (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Fig. 6 and Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15]; and

sending the first transformed content to the at least one mobile client (= delivering converted files to the mobile devices (106) or (602)) [see Fig. 6 and Col. 11, Lines 42-48 and Col. 13, Lines 32-36 and Col. 16, Line 66 to Col. 17, Line 2].

Regarding claim 14, Schwartz further teaches the mobile gateway (= link server (606)) includes mobile client data associating the first transform with the at least one mobile client (= mobile device characteristics information and ID) [see Col. 7, line 56 to Col. 8, Line 11 and Col. 15, Lines 16-21 and Col. 17, Line 65 to Col. 18, Line 5], and wherein the step for querying the mobile gateway comprises the act of retrieving the first transform identifier from the mobile client data (= retrieving URL identified in the client request) [see Col. 14, Lines 2-9 and Col. 15, Lines 28-64].

Regarding claim 15, Schwartz further teaches caching content comprises the act of receiving from the content source, content that is addressed to two or more mobile clients (i.e., since there are a plurality of mobile devices (106) [see Fig. 1] and the control engine of the link server (606) can process one or more client URL requests [see Col. 19, Lines 18-25], the act of receiving from the content source including content that is addressed to two or more mobile devices).

Regarding claim 16, Schwartz further teaches the steps for (i) caching content in a mobile gateway cache, (ii) transforming the content, and (iii) adding the first transformed content to the mobile gateway cache, are performed in connection with obtaining transformed content for a first of the two or more mobile clients, and wherein the steps for (iv) querying the mobile gateway cache, and (v) providing the first transformed content in response to the query for content, are performed in connection with obtaining transformed content for a second of the two or more mobile clients (i.e.,

since there are a plurality of mobile devices (106) [see Fig. 1] and the control engine of the link server (606) can process one or more client URL requests [see Col. 19, Lines 18-25], the act of performing steps (i) –(v) can be in connection with obtaining transformed content for different mobile devices).

Regarding claim 17, Schwartz further teaches the step for providing the first transformed content comprises the act of sending the first transformed content to the two or more mobile clients (i.e., since there are a plurality of mobile devices (106) [see Fig. 1] and the control engine of the link server (606) can process one or more client URL requests [see Col. 19, Lines 18-25], the first transformed content can be sent to the two or more mobile devices).

Regarding claim 18, Schwartz further teaches the content comprises a notification (= notifications) [see Col. 20, Lines 33-38].

Regarding claim 19, Schwartz further teaches the content is identified by a uniform resource identifier (= a uniform resource identifier (URI)) [see Col. 14, Lines 4-9].

Regarding claim 20, Schwartz further teaches the uniform resource identifier comprises a uniform resource locator (= a uniform resource locator (URL)) [see Col. 14, Lines 4-9].

Regarding claim 21, Schwartz further teaches steps for :

transforming the content (= content as messages or files or data) according to a second transform, thereby creating a second transformed content, wherein the second transform is based on one or more operating characteristics of a second mobile client (= processing HDML files and then converting to screen description data according to the devices characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26];

adding the second transformed content to the mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606) wherein the next card from the received HDML deck is cached in the memory in the link server (606)) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34];

querying the mobile gateway cache for the content, the query including a second transform identifier identifier (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15]; and

in response to the query for content, providing the second transformed content (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 22, Schwartz further teaches the content comprises a first portion of other content, the other content including the first portion and a second portion (= content as messages or files or data), comprising steps for :

querying the mobile gateway cache for the other content (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15]; and

in response to the query for the other content, providing the first transformed content (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 23, Schwartz further teaches steps for :

caching the second portion of the other content (= content as messages or files or data), in a mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606)) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34];

transforming the second portion of the other content according to a transform thereby creating a second portion transformed content, wherein the transform is based on one or more operating characteristics of at least one mobile client (= processing HDML files and then converting to screen description data according to the devices

characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26];

adding the second portion transformed content and a transform identifier to the mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606) wherein the next card from the received HDML deck is cached in the memory in the link server (606) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34] and the address URL can be referenced to the card in the deck cached in the link server (606) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15]); and

in response to the query for other content, providing the second portion transformed content (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 24, Schwartz teaches in an computerized system that includes a content server (= network server (104) or (604)), a mobile gateway (= link server (606)), and one or more mobile clients (= mobile devices (106) or (602)) [see Figs. 1 & 6], wherein the mobile gateway transforms content received from the content server based on one or more operating characteristics of at least one mobile client, and wherein the at least one mobile client is unaware of the specific transform applied to the content (= link server (606) receives the HDML files from the network server (604) and then

processes files and converts to screen description data according to the device characteristics of mobile device (602). This process is carried out by the link server (606) and thus client is unaware of specific transformation) [see Col. 3, Lines 40-55 and Col. 11, Lines 15-33], a method of storing transformed content at the mobile gateway so that the transformed content may be sent to the at least one mobile client (= screen description data are then forwarded to mobile device (602) over wireless network (614) for displaying) [see Col. 11, Line 42-48], the method comprising the acts of :

receiving content (= content as messages or files or data) at a mobile gateway (= receiving HDML files at the link server (606)) [see Col. 11, Lines 19-20];

applying a first transform to the content, thereby creating a first transformed content, the first transform specifically considering one or more operating characteristics of at least one mobile client (= processing HDML files and then converting to screen description data according to the devices characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26]; and

storing the first transformed content in a mobile gateway cache, wherein the first transformed content is identified by a first transform identifier (= buffering the network message in a memory cache (612) in the link server (606) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34] and the address URL can be referenced to the card in the deck cached in the link server (606) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15]).

Regarding claim 25, Schwartz further teaches the content comprises a notification (= notifications) [see Col. 20, Lines 33-38].

Regarding claim 26, Schwartz further teaches the content is identified by a uniform resource identifier (= a uniform resource identifier (URI)) [see Col. 14, Lines 4-9].

Regarding claim 27, Schwartz further teaches a computer program product comprised of machine-executable instructions for performing the acts of the method recited in claim 24 (i.e., link control server (606) with control engine (609) and message processor (610) and memory cache (612) for performing the acts of processing requests from the mobile devices ((106) or (602)), generating a URL request to the network server (604), receiving content (= messages or files or data) from the network server (604), managing data cache, processing and converting to screen description data according to the device characteristics of mobile devices ((106) or (602)), transmitting data to mobile devices ((106) or (602)) for displaying) [see Figs. 1 & 6 and Col. 11, Lines 19-48 and Col. 12, Lines 54-67 and Col. 13, Lines 29-36 and Col. 14, Lines 5-9].

Regarding claim 28, Schwartz further teaches the acts of :
applying a second transform to the content (= content as messages or files or data), thereby creating a second transformed content, the second transform specifically

considering one or more operating characteristics of a second mobile client (= processing HDML files and then converting to screen description data according to the devices characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26]; and

storing the second transformed content in the mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606)) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34].

Regarding claim 29, Schwartz teaches in an computerized system that includes a content server (= network server (104) or (604)), a mobile gateway (= link server (606)), and one or more mobile clients (= mobile devices (106) or (602)) [see Figs. 1 & 6], wherein the mobile gateway transforms content received from the content server based on one or more operating characteristics of at least one mobile client, and wherein the at least one mobile client is unaware of the specific transform applied to the content (= link server (606) receives the HDML files from the network server (604) and then processes files and converts to screen description data according to the device characteristics of mobile device (602). This process is carried out by the link server (606) and thus client is unaware of specific transformation) [see Col. 3, Lines 40-55 and Col. 11, Lines 15-33], a computer program product for implementing a method of obtaining transformed content from the mobile gateway so that the transformed content may be sent to the at least one mobile client (= screen description data are then

forwarded to mobile device (602) over wireless network (614) for displaying) [see Col. 11, Line 42-48], comprising :

a computer readable medium for carrying machine-executable instructions for implementing the method at a mobile gateway (i.e., link control server (606) with control engine (609) and message processor (610) and memory cache (612) for performing the acts of processing requests from the mobile devices ((106) or (602)), generating a URL request to the network server (604), receiving content (= messages or files or data) from the network server (604), managing data cache, processing and converting to screen description data according to the device characteristics of mobile devices ((106) or (602)), transmitting data to mobile devices ((106) or (602)) for displaying) [see Figs. 1 & 6 and Col. 11, Lines 19-48 and Col. 12, Lines 54-67 and Col. 13, Lines 29-36 and Col. 14, Lines 5-9]; and

wherein said method is comprised of machine-executable instructions for performing the acts of :

receiving content (= content as messages or files or data) at a mobile gateway (= receiving HDML files at the link server (606)) [see Col. 11, Lines 19-20];

applying a first transform to the content, thereby creating a first transformed content, the first transform specifically considering one or more operating characteristics of at least one mobile client (= processing HDML files and then converting to screen description data according to the devices characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26];

storing the first transformed content in a mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606)) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34];

requesting the content from the mobile gateway cache, wherein the request includes a first transform identifier (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15];
and

in response to the request for content, returning the first transformed (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 30, Schwartz further teaches machine-executable instructions for performing the act of storing the content in the mobile gateway cache (= storing content in the memory cache) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 13, Lines 32-34].

Regarding claim 31, Schwartz further teaches the mobile gateway (= link server (606)) includes mobile client data associating the first transform with the at least one mobile client (= mobile device characteristics information and ID) [see Col. 7, line 56 to

Col. 8, Line 11 and Col. 15, Lines 16-21 and Col. 17, Line 65 to Col. 18, Line 5], the method comprised further of machine-executable a performing the acts of :

receiving a request for the content from the at least one mobile client (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Fig. 6 and Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15];

retrieving the first transform identifier from the mobile client data (= retrieving URL identified in the client request) [see Col. 14, Lines 2-9 and Col. 15, Lines 28-64];
and

sending the first transformed content to the at least one mobile client (= delivering converted files to the mobile devices (106) or (602)) [see Fig. 6 and Col. 11, Lines 42-48 and Col. 13, Lines 32-36 and Col. 16, Line 66 to Col. 17, Line 2].

Regarding claim 32, Schwartz further teaches machine-executable instructions for performing the act of receiving from the content source (= network server (104) or (604)), content addressed to two or more mobile clients (= mobile devices (106) or (602)), wherein the acts of (i) receiving content at a mobile gateway, (ii) applying a first transform to the content; and (iii) storing the first transformed content. in a mobile gateway cache, are performed in connection with obtaining transformed content for a first of the two or more mobile clients, and wherein the acts of (iv) requesting the content from the mobile gateway cache, and (v) returning the first transformed content in response to the request for content, are performed in connection with obtaining

transformed content for a second of the two or more mobile clients (i.e., since there are a plurality of mobile devices (106) [see Fig. 1] and the control engine of the link server (606) can process one or more client URL requests [see Col. 19, Lines 18-25], the act of performing steps (i) –(v) can be in connection with obtaining transformed content for different mobile devices).

Regarding claim 33, Schwartz further teaches machine-executable instructions for performing the act of sending the first transformed content to the two or more mobile clients (i.e., since there are a plurality of mobile devices (106) [see Fig. 1] and the control engine of the link server (606) can process one or more client URL requests [see Col. 19, Lines 18-25], the first transformed content can be sent to the two or more mobile devices).

Regarding claim 34, Schwartz further teaches machine-executable instructions for performing the acts of :

applying a second transform to the content (= content as messages or files or data), thereby creating a second transformed content, the second transform specifically considering one or more operating characteristics of a second mobile client (= processing HDML files and then converting to screen description data according to the devices characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26];

storing the second transformed content in the mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606)) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34];

requesting the content from the mobile gateway cache, wherein the request includes a second transform identifier (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15]; and

in response to the request for content, returning the second transformed content (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 35, Schwartz further teaches the content comprises a first portion of other content, the other content including the first portion and a second portion (= content as messages or files or data), the method comprised further of machine-executable instructions for performing the acts of :

requesting the other content (= content as messages or files or data) from the mobile gateway cache (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606)) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15]; and

in response to the request for the other content, returning the first transformed

content (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Regarding claim 36, Schwartz further teaches machine-executable instructions for performing the acts of :

requesting the second portion of the other content (= content as messages or files or data) from the content source (= request the content by the mobile device sending URL wherein the address can be referenced to the card in the deck cached in the link server (606) or to a remote object on service server (604)) [see Col. 13, Lines 26-32 and Col. 14, Lines 4-9 and Col. 17, Lines 6-15];

storing the second portion of the other content in the mobile gateway cache (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15];

applying a transform to the second portion of the other content, thereby creating a second portion transformed content, the transform specifically considering one or more operating characteristics of one or more mobile clients (= processing HDML files and then converting to screen description data according to the devices characteristics of the mobile device (602)) [see Col. 3, Lines 40-55 and Col. 11, Lines 20-26];

storing the second portion transformed content in the mobile gateway cache (= buffering the network message in a memory cache (612) in the link server (606)) [see Fig. 6 and Col. 4, Lines 4-5 and Col. 12, Lines 62-63 and Col. 13, Lines 32-34]; and in response to the request for the other content, returning the second portion transformed content (= retrieving the requested information and forwarding the converted files (= cards) to the mobile device (106) or (602) for display) [see Figs. 1 & 6 and Col. 4, Lines 5-8 and Col. 11, Lines 42-48 and Col. 13, Lines 2-36 and Col. 17, Lines 12-15].

Other References Cited

6. The following references cited by the examiner but not relied upon are considered pertinent to applicant's disclosure.

A) Jamtgaard et al, U.S. Pat. No. 6,430,624, discloses translation data formats and delivery of different types of content to different information appliances.

B) Liao et al, U.S. Pat. No. 6,292,833, discloses mobile devices accessing data via a network gateway.

C) Boyle et al, U.S. Pat. No. 6,119,167, discloses pushing and pulling data in networks via mobile gateway.

D) Hall et al, U.S. Pat. No. 6,414,962, discloses mobile devices accessing data via a gateway with a cache memory.

E) Lee et al, U.S. Pat. No. 6,336,137, discloses wireless clients accessing data from web server via a mobile gateway.

F) Lincke et al, U.S. Pat. No. 6,397,259, discloses packet minimized communications between a wireless client and a web server via a proxy server.


G) Carini et al, U.S. Pat. No. 6,636,873, discloses synchronization a mobile device with a remote database via a gateway server.

7. A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS ACTION IS SET TO EXPIRE THREE MONTHS, OR THIRTY DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. FAILURE TO RESPOND WITHIN THE PERIOD FOR RESPONSE WILL CAUSE THE APPLICATION TO BECOME ABANDONED (35 U.S.C. § 133). EXTENSIONS OF TIME MAY BE OBTAINED UNDER THE PROVISIONS OF 37 CAR 1.136(A).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tran whose telephone number is (703) 308-8767. The Group fax phone number is (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam, can be reached on (703) 308-6662.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.


Philip B. Tran
Art Unit 2155
May 11, 2004